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PRACTICAL RESTRICTIONS ON CHILD LABOR IN TEXTILE INDUSTRIES; HIGHER EDUCATIONAL AND PHYSICAL QUALIFICATIONS

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As a rule the textile industries, both north and south, have been advertised as among the worst offenders against the children, and I suppose that it is on this account that your secretary has asked me to explain the attitude of a textile industry which has found that it could do without the labor of children, at least until they were fifteen years old.

At the start, I must explain that my experience has been confined to but one branch of the textile trade, namely, silk manufacturing. The conditions surrounding this industry have, however, given me exceptional opportunities to study the problem, not alone from the mill standpoint, but from the standpoint of the school.

The firm by which I am employed has roughly some 3,600 hands. The plant is situated at some distance from a city, and, in a community of approximately 13,000 inhabitants, is the principal industry. Most of the employees in the mill live within one school district, which has 1,800 children enumerated. As a member of the Board of Education, it has been my duty for four years to pass upon the certificates of children leaving school to go to work, and also for the last two years I have inspected the applications of persons under sixteen years of age applying for work, to see that they had conformed to the state laws and school regulations, and to the firm's rule that they would employ no children under fifteen years of age. As a great majority of the children attended one school and went to work, if at all, for one firm, it has been possible as in few other places to watch the workings of a rule forbidding the employment of children for a year more than the law required, and of a school board ruling that no child should leave to go to work who had not completed the sixth grade. This ruling was possible but not customary under the Connecticut law, the fourth grade being usually considered sufficient to earn a certificate.

Therefore, neither the school nor the mill had a compelling law behind it, but the fact gave a much greater opportunity to study the exceptions, because they all had to be answered reasonably rather than legally.

Of course, every just exception which led to giving work to a child made it more difficult to keep others out. I must say frankly at the start that there was some opposition among some of the heads of departments to excluding these children. But in all those departments where the work requires *consecutive labor demanding concentration, attention and care*, there is now a unanimity of opinion that a textile industry can do better without than with children, until they are at least fifteen years of age. The boy or girl of sixteen will actually give in work at least half an hour a day more than the average younger child; will do at least five per cent more work, hour for hour, with an appreciable less amount of waste of material and damage to finished product. The work will require less supervision, and will be of a higher grade when finished. The savings secured to the employer by the older child as an offset to the fifteen per cent higher wage can be better measured by experience than by statistics, which are noticeable only by their absence. But wherever the work to be done is continuous for nine or ten hours, and requires attention as long as the machinery runs, our experience would say emphatically that the increased production by the older child, of goods of a higher grade, at a lower cost of supervision and all other overhead charges, is cheaper than the production of the fourteen year old child at a lower wage. Two factors have been constantly at work in the silk industry to bring about a changed condition in respect to child labor.

1. We are constantly raising the standard of our goods, and hence the workmanship. A plain black grosgrain for which my firm made a name forty years ago, would not be a marketable piece of goods now. Every process requires more exact handling than it did then.

2. The great strides in improved machines have not been made without a nearly proportionate increase in the capital invested, and hence it is increasingly necessary to secure the maximum production of machinery to pay a fair return on capital. Twenty years ago an investment of \$1000 per loom would have been considered ample to build and equip a mill of one hundred silk ribbon looms,

where to-day \$2000 a loom would be necessary to place your plant on a plane of efficiency equal to the most up-to-date mills. Consider, therefore, how much more necessary it is to watch the product of a machine and its operator per day and hour. When you couple these conditions with a raw material worth from three dollars to seven dollars per pound, and in which a careless hand can spoil more in an hour than he can earn in a week, he is either a very poor silk manufacturer, or a manufacturer of very poor goods, who persuades himself that there is any economy in child labor as far as silk throwing, dyeing, winding, warping, quilling, weaving or finishing goes.

The processes already described include all those in silk manufacturing in which *the work is continuous and demands more or less constant attention as long as the machinery runs*. In these there is no economy in the employment of children, at least until they are fifteen years of age.

In the above I have stated as fully as possible the economic reasons only which lead me to believe that child labor is not at all essential to the silk textile industries. In all frankness I must also present to you the difficulties which manufacturers must overcome in doing away with this class of labor. I believe your agitation would make more rapid headway and obtain the co-operation of the more enlightened manufacturers, if it would concern itself with the making of these difficulties less where principles are not sacrificed, rather than by accentuating them by prohibitive legislation. There are distinct lines on which you can co-operate with the manufacturer, and I am sure he will meet you halfway in them.

Discrimination Needed

The first of these leads to a group of employments in which *the work is intermittent* and requires the attention of the employee for perhaps not more than two-thirds or one-half of the time. This covers a variety of jobs which in the total would not employ a large number of hands, such as "doffers" or children who replace the full spools on a spinning frame with empty ones; bobbin boys, who keep the various operators of machines supplied with spools and deliver the full ones to the next process; booth tenders, who in weaving rooms hand out the full filling boards to the weavers and refill the empty ones; and a small number of errand boys and

girls. In all of these cases the work is intermittent, *i. e.*, allows for periods of rest, and in none of them are children engaged in the operation of *running* machinery. This group of employments is much more important to the cotton industries than to the silk. It is possible to define it, as above, in legislation on the subject; and the employment is not injurious to the children where it is safeguarded by registration with factory inspectors for all children over fourteen years of age so employed, and permits issued only after inspection of the conditions and hours under which they work. It represents a group of employments which constitute a peculiar problem to the manufacturer, and in them centers an economic opposition to further restrictions on this class of labor.

This kind of employment illustrates a point I wish to emphasize. I believe that your agitation does not always take account either of the things which children can do in a mill with less chances of injury than they encounter on the streets and in work at home, or of the perplexities which the manufacturer encounters, both as a maker of goods and an employer of labor. With him it is not alone a question of economies in particular jobs, important as these are, but of maintaining a scale of wages fairly adjusted to the skill required and amount of work done. If he pays a girl one dollar and twenty-five cents to put empty spools on in place of full ones, and then to rest for half an hour, when a girl at seventy-five cents can do it just as well, he not only increases his cost in a small item, but invites a condition of dissatisfaction with all of the other one dollar and twenty-five cent help in his mill.

It is one of the difficult problems in manufacturing to make a wage scale fairly proportioned to a wide range of abilities, and one's capacity for fair dealing is measured largely by one's success in this respect. The manufacturer has often given unselfish thought and anxiety to the problems which you are agitating, and can work with an intelligence born of actual experience, which is not possible for you on the outside of a mill to approach. It may be a truism to say that if you devoted more time to his difficulties you would encounter his opposition less.

His next most serious difficulty is in meeting your demand for an eight-hour day for laborers between fourteen and sixteen years of age. As long as the machinery runs in his mills there must be operatives to tend them, and these operatives must have

their assistants, doffers, bobbin boys and booth tenders. If their labor is essential, it is just as essential from four to six as it was in the earlier hours. In the proposal of a fifty-five hour week for such employees he would more readily meet you, because by shifts it is easier to arrange the work to meet a deficiency one afternoon in a week than for a shorter portion of every afternoon. He would also more readily meet you in the enforcing of more stringent physical and educational standards, which would keep out the physically defective or mentally deficient children to whom the longer hours would prove injurious. I believe such physical and mental standards should be rigidly enforced. But in allying yourself with the eight-hour cry you are weakening your cause to the extent that you are burdening the child-labor issue with a more general economic question.

There is a final difficulty in connection with the restrictions on child labor in which the manufacturer finds you in sympathy with him, namely, in providing a system of industrial training which will produce more efficient labor than our present school system does. I will refer to this matter more fully later.

To summarize my arguments up to this point, I would say—

1. The silk textile industries realize no economy from child labor where the work is continuous, and in these employments economic forces and conditions of production are working out the problem in harmony with the moral campaign to which you have given an impetus.

2. Where the work is not continuous, or not engaged in direct operation of running machinery, and is not paid by the piece, it should be your policy to safeguard the children by restrictions rather than by prohibitions.

3. The organization of a mill cannot lend itself to one set of hours for mature workers and another set for fourteen to sixteen year old hands, and here again restrictions will accomplish your ends without prohibitions.

In brief, prohibition of child labor in the textile industries, wherever the work is continuous and involves the operation of running machinery, is necessary. Restriction is required only where the work is intermittent, or is not done under the strain of the piece-work system, or the worker is not directly engaged in tending machinery.

So far as economy of production goes, as a manufacturer I believe we can do without the labor of children. But ridiculous though the statement may sound to some of you, from an intimate connection with the schooling on a large scale of the children of laboring people, I feel that these children cannot do without the work until a better substitute than the present school is provided. The theoretical proposition "that the worst thing a child can do is to go to work," is no more true than its complement "that the best thing for a child to do until he is sixteen years of age is to go to school."

You too often approach the problem from the theoretical side, and stating the condition under which the normal child can best develop, you assume that there is a choice open to the average child between these conditions on the one hand and work on the other. You infer that he has plenty of nourishing food; that he is working progressively in school; that his hours out of school are given to proper recreation and fresh air, and that his home life protects him from evil influences, while he is undergoing a discipline or training which will prepare him for his future work in the world. You assume that it is a choice between a healthy growth under these conditions and work that is physically injurious, mentally stultifying and morally degrading. Of course, this is a colored picture intended to illustrate a not uncommon attitude.

A Many-Sided Problem

Whoever studies this problem of child labor must soon come into a sense of its many-sidedness. It is only secondarily a problem in economics and primarily one in humanity in general and education in particular, and I believe that its ultimate solution must be found in the schools rather than in the mills.

It may seem somewhat surprising to you, but the manufacturer's point of view, if he be at all progressive, and if his plant has been established long enough for him to appreciate the responsibility it owes to its workers no less than to its stockholders, is not radically divergent from yours. Unless he be blind to everything but his next quarterly dividend, he appreciates far more forcibly than you do that keen minds, active bodies and willing hearts transmitted from the apprentice to the master, or from the child to the man, make directly for steady and devoted helpers, for ingenuity, interest

and efficiency—in brief, for skill and economy. If he is building for his sons, no less than for his own immediate pocket—and many an American father has that habit—he knows more certainly than you can appreciate that fair dealing with his help has no uncertain connection with fair dealing with his customers, in goods made with all the interest, the intelligence and the force which he can command. More than all, he knows, or he has missed the highest possibilities of his business, that nothing else can supply these qualities in his goods or any improvements in mechanical processes make good their absence. Humanity plays no less a part in successful manufacturing than in any of the occupations by which selfish man makes his living.

But if what I have said is true, you will at once challenge my statements by demanding an explanation of the presence of child labor in these trades. Frankly admitting the selfish motives of manufactures, I will endeavor to show the influences which are at work on this problem, and you will please bear in mind that I am speaking of the Northern and Eastern states, where only children who are over fourteen years of age, working not more than sixty hours a week, under some educational qualifications, are employed. I would say that the presence of these children in the factories is due to three causes, whose potency will vary with every locality and in every family.

(1) Belief on the part of the manufacturers that such labor is profitable, either directly or indirectly, in maintaining an average wage scale and as an apprenticeship system.

(2) The desire on the part of the parents, or children, or both, for a larger income.

(3) The failure of the school to advance or interest the average child of over fourteen years of age who is going to work with his hands.

The interests of the manufacturer I have described above, and have endeavored to point out practical ways in which he could co-operate with you. But in reality you have no right to consider his interests except in so far as they are identical with those of the children. Turning to the family and educational side of the question, I will attempt to explain, from a personal observation which is the result of responsibility for a school system in a textile town, the influences which are compelling children to go to work, where

the manufacturer's selfishness is at least restricted. I will leave the conclusion to point its own moral—that the truest safeguards you can erect for the protection of these children are higher educational qualifications which enlist the whole boy and not his mind alone, and which leave every possible opportunity open to the boy who can avail himself of it without injury.

Attitude of Parents

The parents, if they influence the child at all, in more than the average case decide in the interests of a larger family income. In a well-defined class of cases I have found that the worst offenders against the children are their own parents, and it is from them that they need protection. The only protection which will be effective against this particular evil will be the rigid enforcement of educational and physical restrictions. Laws prohibitive as to age will not affect the parents who lie about their children's ages, nor prevent them from altering and forging birth certificates in a way that would be ludicrous if it were not so pitiful.

The percentage of cases of real need in which it is a question between self-support and town aid is small, not over fifteen per cent. In principle as well as practice, self-support, if attainable, is better than town aid or assistance from any public charity which it is now possible to give. Perhaps public school scholarships wisely administered may ultimately solve the difficulty. They are not available now to any extent. But until the condition of actual need is met, you are committing a positive injury in depriving this class of children of their only opportunity to find a way out. In such cases *the school and charity authorities jointly should be given discretionary authority to allow a child of fourteen years to go to work or to be supported at public charge.* But of greater frequency than the cases of extreme need are those in which the influence of the parents, without sufficient necessity, or the loyalty of the child, persuades him to assist in supporting the family. The total of such cases of both kinds is perhaps one-half of the total number of children who leave school to go to work.

That a portion, perhaps large, of this number could actually have done without this assistance, does not seem to me to alter the conclusions that if you forbid the parents to make the children help toward their own support, you must provide an alternative, which

in the long run will make a continued parental sacrifice worth while. That is, you must be able to demonstrate that more schooling will either make their children higher wage earners or will open up to them a higher social position.

The first motive will appeal more powerfully to the struggling families, and to them the school now fails admittedly to provide a training for higher efficiency. The second motive, social position, your school *can* enlist, legitimately in some instances, unwisely and harmfully in a great majority of cases. To any one who is acquainted with our schools the most unnecessary and pathetic failures are where parents are sacrificing their very lives to maintain in a high school a child who has no ability, and cannot even conceive the value of the opportunity offered. Wherever false ideals based on a smattering of many things, imperfectly digested, have grown in place of trained habits of thought, of efficiency and diligence, your school has done an injury which can only be undone by bitter experience afterwards.

Influence of the School

So much for the influence of parents. If they do not compel or strongly advise going to work, what influence does the school have on the child's decision? If he is working progressively, it is fair to assume that he is interested and would like to stay on. If by the time he has reached the age of fourteen he has not passed the sixth grade, which means he has taken eight years to do the work which should have been done in five or six, he must have lost from two to three years either through incapacity or lack of interest. As we are concerned, in this discussion, only with those children who do go to work, we are certainly within the truth in stating that not over a third of those at work can do more than read fluently, write fairly legibly and perform the simpler processes in numbers, including common fractions. The average child who goes to work from the sixth grade, or below, has reached the limit both of his interest and his capacity to absorb what is put before him. If you compel him to stay in school, you may be protecting him from physical and moral injury, but you have done nothing to positively advance him upon his way, or bridge over what you frequently term "the two wasted years." It is possible that a widespread interest in industrial training may in time produce a school which will meet the pressing

requirements, but in the meanwhile are you justified in advancing the age limit two years before you have provided an adequate training for at least one-half of the children affected? It is perfectly true that in the past schools have been provided much more slowly than increases of population demanded.

I know that I am laying myself open to your criticism in suggesting a compromise between the fourteen-year-old standard established in most states of the North and East and your sixteen-year ideal limit. I have heard you describe in scathing terms the manufacturer who seeks to continue his exploitation of child labor by exaggerating the educational shortcomings. But fortunately the facts need no exaggeration to make them sufficiently startling. And so long as not more than a third of your laboring children are advanced beyond the sixth grade when they go to work, it is not a satisfactory solution of the problem to continue them in such a school for two years longer.

The Need in Education

In agreement with Dr. Draper, I believe that the vital need is not so much for a brand-new style of education as for improving and intensifying what we have. I am out of patience with many of the students of industrial training, who have come to the conclusion that a more or less technical training for pupils of high school grade is going to meet a critical condition caused by pupils who are struggling along in the fourth, fifth and sixth grade. No industrial training is adequate unless it can be applied to the earlier grades. Taking these grades and the ideals which govern them, what are the foundations on which we must build?

The ideal most indelibly stamped upon our common schools is that they are to provide a training, admittedly and predominantly cultural, which is to open the door of opportunity to all kinds and conditions of people. Our free American schools are *individual in their purpose and general in their tendencies*, as opposed to the *national ideal* which governs the German schools in the development of *specific trainings best adapted to classes of pupils*. The German literature on the subject which has been so voluminously laid before us recently is most interesting, but it can only tempt us out of our plain course, so far as definite application of it goes. We are not ready to abandon our ideal of a cultural training as the

best highway for an open opportunity, and we could not, if we would, force a separation at the end of our elementary schools between those children who expect to work with their hands and those who expect to work with their heads. The experience of England is no more helpful to us, unless it is an example of how not to work out the part-time system. We can obtain valuable suggestions and inspirations from the foreign systems, but to make real progress against our own difficulties we must keep our feet firmly planted in American traditions. Frankly accepting the fact that we are going to demand a cultural training, which seeks to open one's eyes to a wider world than our own, we must direct it toward efficiency and definiteness.

We must endeavor to get hold of our raw material, to use a manufacturing term, at an earlier age, in the kindergarten if possible, which should have a more definite aim. It should lay the foundations of a larger vocabulary, of a habit of doing for oneself rather than of being done for by a teacher; of simple, but definite, ideas of discipline and effective co-operation; of some degree of concentration and thoroughness, and finally of an elementary power of expression with the hands as well as with the tongue. Then will your kindergarten become a preparation for the primary grades.

In the elementary school no new direction is possible, but in our own case we have been able to secure greater efficiency by smaller subdivisions and more exact grading. Here the classes are flooded with foreigners.

These foreign pupils and all subnormal children must be reached at an earlier age; they must be kept moving and not allowed to stagnate. This can only be done in smaller classes and more specialized work. The question of expense will be urged against all this. For a practical mill man the first principle to be learned is the economy of a high degree of completion of every process in itself. "Yarn well spun is nearly warped and a warp well made is half woven." Do you school men seriously enough consider the extravagance and waste, both of pupils and teachers, in half-taught ideas which have to be gone over and over again, each time with an added danger of confusion and uncertainty? You may not admit any parallel between the production of immaterial ideas or brains and of material things. Yet you must, as teachers, admit the unfairness both to dull and bright pupils of the waste in energy

and time caused by large classes of improperly graded children. Perhaps public parsimony may be slow in recognizing this fact, but the awakening will come more rapidly if you lay your stress on the greater efficiency of what we have.

Much, too, can be accomplished in securing more regular attendance. The practical abolition of truancy by capable truant officers and prosecution of parents; a carefully organized system of medical inspection and efficient nurses who treat in school many minor ailments for which the pupils would otherwise have been out, and an intelligent attention to securing the co-operation of parents, I know, will raise an average attendance of eighty-four per cent to ninety-two per cent. This would make a difference of about a half a year in the time the average child spends in school. In a town of only one industry and one school I recognize that many things are easy of accomplishment, which in a city would be impossible.

Employ only efficient teachers and pay them well. Try to instill a spirit of enthusiasm and vigor, even at a greater expenditure of wages. No motives of consideration justify a waste of children by the retention of teachers who have outlived their usefulness. It is far cheaper to pay a pension. Too great rigidity and conventionality in your systems of promotions make for inefficiency, so far as it insufficiently rewards exceptional ability and encourages a mediocrity just short of the dismissal line.

Through the fifth and sixth grades, where the problems of discipline are most acute, scatter a few men. Here despite all your efforts those pupils who have reached the limit of their ability to profit by cultural training will begin to stagnate. Respect for a man's authority is more than a moral tonic. It is respecting the boy's developing manhood. You cannot hold him by methods which appeal to smaller children. With undeveloped capacities for guidance he feels a man's instincts, which must be honored and satisfied. In no way more legitimately can this be done than by giving him something that he is capable of doing, and through the doing of which under a man's direction he can come into a sense of his own power, and happiness in his own usefulness. Here again your school loses in power, because it has not studied its materials and intensified its processes.

I am conscious that some of you are thinking that I am treat-

ing the problem just as if the children were so many different kinds of silk and the teachers were so many operatives and foremen. But I wish I could make you appreciate how many different kinds of good and bad humanity and saintliness and cussedness can be expressed in a piece of silk. No human being can spend himself upon a piece of work without putting something of his humanity into it. The silk dress which you wear contains some indefinable impression of the old Chinaman who tended the worms and moths more tenderly than many women care for their babies; something of the Japanese children who plucked the mulberry leaves and much of the climate of the particular country which grew those leaves. The Italian girls who reeled the fibers from the cocoons, and the French women who spun the fine strands into coarser threads have added their individuality to the accumulating problem which the Yankee mill takes up. If you think we add nothing further, go from one department to another and observe the spirit and the character of the room as affected both by the character of the foreman and the hands; or better still, go from mill to mill to study the effect of the controlling organization. Think, as you hurry along in confused ignorance, of the art of the designer, the dyer, the printer and mechanic, no less than the skill of the thrower, of the quiller, warper weaver and finisher.

Try to conceive of the brain matter that has gone into the improved machinery—and it is not the great discoveries but the many little improvements that seem so simple you wonder they were ever problems, which make for rapid progress. Do not stand like dummies asking what a machine is doing, only to be told that the product goes in so on this side and comes out so on that; but try to get hold of some part of the human wits that have gone into the development of that particular process. You may not understand the process any better, but you must come into the renewed sense of the culture of work, however mechanical.

Efficiency in the school is directly related to efficiency in the mill. Culture in the mill is the same thing as culture in the school. Whoever puts something of himself into a task is on the way to attain unto culture, and whoever has taken something out of a task and made it his own attainment is cultured to that extent, whether it be in literature or weaving. The problem that is before us is not to discover some mysterious and physiological connection

between the hand and the brain. It is to find means whereby the child can express himself accurately, efficiently, and with a comprehension of what he is doing. Hand work is to many a child the easiest and readiest means of expression. If accuracy and efficiency result from it, by so much will culture, or power to command expression follow. You have in your present feebly-organized manual training most of the equipment necessary. Do not be afraid to use it under the direction of an enthusiastic mechanic and rest assured that the boy will discover its meaning without the aid of philosophy and psychology.

I have taken all the time allotted me to carry you to my point which is that if your grammar schools can attain that degree of efficiency which will have carried boys and girls who expect to work through the sixth grade, then and not till then can you guarantee the preparation which is necessary for a proper industrial school. In brief, stress laid not so much on the things done as on the way in which they are done; on culture as the power to see, think and act in the experience of childhood, rather than on culture as the accumulation of ideas however valuable, will best lay the foundations of the industrial school of the future. And if that industrial school can teach mechanical expression rather than exact trades, it will become an ideal stepping stone to an efficient trade school.